

INTERNATIONAL SEARCH REPORT

IB2004/052021

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01L21/336 H01L21/265 H01L29/78

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 818 715 A (CHAO FUNG-CHING) 4 April 1989 (1989-04-04)	1-6
Y	figures 5a-5i	7-10
X	US 6 380 053 B1 (KOMATSU HIROSHI) 30 April 2002 (2002-04-30)	1-6
X	US 5 747 373 A (YU CHEN-HUA) 5 May 1998 (1998-05-05)	1-6
X	US 6 083 846 A (GARDNER MARK I ET AL) 4 July 2000 (2000-07-04)	1-6
	figure 18	
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

T later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the International search

14 December 2004

Date of mailing of the International search report

21/12/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Nesso, S

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 015 598 A (VERHAAR ROBERTUS D J) 14 May 1991 (1991-05-14) figure 8 -----	1-6
X	US 2003/162359 A1 (KIM YOUNG-WUG ET AL) 28 August 2003 (2003-08-28) figure 2 -----	1-6
X	US 6 187 620 B1 (WRISTERS DERICK J ET AL) 13 February 2001 (2001-02-13) figure 12 -----	1-6
X	EP 0 506 427 A (SGS THOMSON MICROELECTRONICS) 30 September 1992 (1992-09-30) figure 3d -----	1-6
Y	US 5 913 124 A (LUR WATER ET AL) 15 June 1999 (1999-06-15) column 3, line 36 - line 45; figures 2B-2C -----	7-10
A	US 6 225 176 B1 (YU BIN) 1 May 2001 (2001-05-01) the whole document -----	1-10

INTERNATIONAL SEARCH REPORT

IB2004/052021

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 4818715	A	04-04-1989	NONE		
US 6380053	B1	30-04-2002	JP	2001068669 A	16-03-2001
US 5747373	A	05-05-1998	US	6191462 B1	20-02-2001
US 6083846	A	04-07-2000	US	5793089 A	11-08-1998
US 5015598	A	14-05-1991	FR	2654258 A1	10-05-1991
			EP	0426251 A1	08-05-1991
			JP	3157938 A	05-07-1991
US 2003162359	A1	28-08-2003	CN	1335648 A	13-02-2002
			JP	2002043328 A	08-02-2002
			US	2002008295 A1	24-01-2002
US 6187620	B1	13-02-2001	US	5869866 A	09-02-1999
EP 0506427	A	30-09-1992	US	5162884 A	10-11-1992
			EP	0506427 A1	30-09-1992
			JP	5102470 A	23-04-1993
US 5913124	A	15-06-1999	GB	2328078 A ,B	10-02-1999
			NL	1006872 C2	02-03-1999
			DE	19734837 A1	26-11-1998
			FR	2763743 A1	27-11-1998
			JP	3041369 B2	15-05-2000
			JP	10335662 A	18-12-1998
US 6225176	B1	01-05-2001	NONE		